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A Partially Annotated Guide to Selected Fish Bibliographies (1738-1988)

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November 1989

Canadian Technical Report of Fisheries and Aquatic Sciences No. 1717

Fisheries and Oceans Pêches et Océans

Canada

Canadian Technical Report of Fisheries and Aquatic Sciences

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Cat. No. Fs 97-6/1717E ISSN 0706-6457

Correct citation for this publication:

McLean, E., C. C. McLean and E. M. Donaldson. 1989. A partially annotated guide to selected fish bibliographies (1738-1988). Can. Tech. Rep. Fish. Aquat. Sci. 1717: 43 p.

90-03427/

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ABSTRACT

McLean, E., C. C. McLean and E. M. Donaldson. 1989. A partially annotated guide to selected fish bibliographies (1738-1988). Can. Tech. Rep. Fish. Aquat. Sci. 1717: 43 p.

A compilation of 228 selected fish-orientated bibliographies is presented. Of those cited, 150 are specific for 18 individual Orders which cover in excess of 40 families and over 100 individual species. The bibliographies listed provide a means of gaining access to approximately half a million ichthyological citations for the period ante-1597-1988. Brief annotations provide a means of identifying the content and scope of coverage offered by certain of the bibliographies. The listing is intended to assist in initial searches of the ichthyological literature, for both individual species and for specific fields of study. Each reference is indexed under author and subject heading.

RÉSUMÉ

McLean, E., C. C. McLean and E. M. Donaldson. 1989. A partially annotated guide to selected fish bibliographies (1738-1988). Can. Tech. Rep. Fish. Aquat. Sci. 1717: 43 p.

Ce document nous présente un regroupement de 228 bibliographies choises qui portent sur les poissons. Parmi les bibliographies mentionnées, 150 portent sur 18 ordres précis recoupant plus de 40 familles et plus de 100 espèces. La liste permet d'avoir accès à environ un demi-million de citations ichthyologiques de la période précédant 1597 à 1988. Les prèves notes permettent de connaître le contenu et la portée des textes de certaines bibliographies. La liste a pour but d'aider les intéressés dans la recherche initiale de documentation ichthyologique portant sur des espèces et des domaines d'étude particuliers. Chaque texte est inscrit par auteur et par sujet.

INTRODUCTION

It is generally accepted that the review and appropriate use of pertinent literature is fundamental in the planning and effective execution of any research programme. A thorough knowledge of the literature provides an appreciation of the historical development of a specific field and often identifies those areas of research which are in need of clarification. In addition, familiarity with the literature insures against the needless repitition of research and may also provide useful insights into more effective programme planning. However, information retrieval is both costly and time-consuming. For some, such exercises are eased with the assistance of on-line computer-based searches; for the majority, literature search is generally accomplished manually, utilising one or more abstracting services or alternatively, specialist bibliographies. The benefits of employing the latter system of literature search are many and varied. In particular, specialist bibliographies provide access to specific material of relevance to particular fields of study, concentrated in one or more volumes. However, in order to gain the benefits that specialist bibliographies offer, the user must be equipped with a basic knowledge of the scope and variety that exist. To this end, the following compilation was undertaken in an attempt to map the variety of specialist and general bibliographies which are available for reference. Concomitantly, the compilation also provides an indication of the lack of specialist fish bibliographies for specific Orders, Families and species.

Examination of the bibliographic literature upon fish reveals that the first list of ichthyological authors was compiled by Ritterhusius in 1579. However, although of historic interest, the citations contained within Ritterhusius' text were only part of a much larger compilation, which covered the natural sciences in general. Artedi's (1738) volume probably represents the first bibliography which was dedicated to ichthyological works. Throughout the 1700 and 1800s similar bibliographies appeared only sporadically (e.g. Walbaum, 1788; Cloquet, 1821; Westwood and Satchell, 1883), but in general the majority of ichthyological works were catalogued in geological, zoological and general bibliographies (e.g. Boehmer, 1785; Agassiz and Strickland, 1848). Notable exceptions include the works of Ellis (1811), which represents the first attempt of a compilation of works on angling; Pickering (1836), Bethune(1847), Smith (1856), Bosgced (1874), Gill (1882) and Albee (1896).

By the turn of this century, a variety of extended ichthyological bibliographies appeared (eg. Marston, 1901; Anon, 1909) and, between 1916 and 1923 the definitive reference guide to the fish literature ante-1923 was published in a three tome format (Dean, 1916-1923). During the last 65 years, the publication of specialist ichthyological bibliographies has flourished (Figure 1). Of those cited within the attached bibliography, 150 are specific for 18 individual Orders (Figure 2), which cover in excess of 40 families and over 100 individual species. When considered with the more general bibliographies included below, some 45 Orders and over 350 families are represented. Together, the combined bibliographies provide more than half a million individual citations upon all aspects of fish biology.

Inevitably, many of the citations included in the bibliographies

noted below, will have been duplicated, particularly within those specialising in individual families (e.g. Salmonidae, Scombridae, Cichlidae). For this reason, wherever possible, brief annotations are provided, for some of the bibliographies which have been seen by the authors, in an attempt to clarify their content. Needless to say, it is certain that many published bibliographies have been overlooked in the following compilation; particularly those dealing with highly specialised fields of study, (see McLean and Donaldson, 1989) but the inclusion of a general section will hopefully provide access to many of those which remain uncited.

Also, bibliographic listings for individuals, and institutional bibliographies are not cited. The systematic listings used throughout the following were derived from Lindberg (1974) and Nelson (1984), the former of which provides an indispensible bibliographic guide to the systematic literature upon fishes. The bibliographies cited below were gathered by searches of computer data bases and various abstracting services. The following listing is divided into four catagories. The first section (specialised bibliographies) has been arranged, according to the keys cited above, by Order, within which citations for individual Families, genera and species are included. A section is also included for bibliographies that centre upon fish reproduction, early life history and larval rearing. Bibliographies which are specific to geographically distinct land masses (e.g., Arctic Canada, Africa, Latin America) are placed in the appropriate section (geographical). Where a specific bibliography is geographically distinct, but specialized in its content, the subject specialty takes preference. Finally, a general section is included for bibliographies which do not fall into any of the above catagories.

ACKNOWLEDGMENTS

The authors extend their thanks to the staff of the West Vancouver Laboratory, Pacific Biological Station and University of British Columbia libraries for their assistance in the compilation of the bibliography; M. Booth for her considerable efforts in finalising the manuscript; E.M. gratefully acknowledges receipt of a DFO/NSERC Post-Doctoral Research Fellowship.

REFERENCES

Agassiz, L. and Strickland, H.E. (1848-54). Bibliographia zoologiae et geologiae. A general catalogue of all books tracts and memoirs on zoology and geology. 4 vols., London, 2259p.

Albee, L.R. (1896). The Bartlett collection. A list of books on angling, fishes, and fish culture in Harvard College Library. Cambridge, Mass. (USA), 180p.

Anonymous (1909). Catalogue of the library of the late John G. Hecksher, 3 parts. New York, 382p.

Artedi, P. (1738). Bibliotheca ichthyologica sive historia litteraria ichthyologiae in qua recensio fit auctorum, qui de piscibus scripsere, liborum titulis, loco and editionis tempore etc. Lugduni Batavorum, 66p.

Bethune, G.W. (1847). A Waltonian library; or a list of such works as relate to fish and fishing. pp. 151-203, In: Bethune's edition of Walton and Cotton's The compleat angler. New York, 203p.

Boehmer, G.R. (1785-6). Bibliotheca scriptorum historiae naturalis, oeconomiae, aliarumque artium ac scientarium ad illam pertinentium realis systematica. Parts 1-4, in 2 vols. Lipsiae, 2690p.

Bosgoed, D.M. (1874). Bibliotheca ichthyologica et piscatoria; catalogus van boeken en geschriften over natuwrligke geschiedenis van de visschen en walvisschen, de kunstmative vischteelt, de visscherijen, de wetgeving op de visscherijen, enz. Haarlem, 474p.

Cloquet, H. (1821). Bibliographie d'ichthyologie. pp. 443-548, In: Dictionanire des Sciences Naturelles, vol. XXII, Paris.

Dean, B. (1916-23) A bibliography of fishes. Vols. I and II enlarged and edited by C.R. Eastman; Vol. III extended and edited by E.W. Gudger, with the assistance of A.W. Henn. Nat. Hist. Mus. New York, Uni. Press, Cambridge, (Mass.), 2127p.

Ellis, H. (1811). A catalogue of books on angling, wich some brief notices of several of their authors. London, 21p.

Gill, T.N. (1882). Bibliography of fishes of the Pacific coast of the United States to the end of 1879. Smithsonian Misc. Colls., 23, 1-73.

Lindberg, G.U. (1974). Fishes of the world. A key to Families and a checklist. Wiley and Sons, Toronto, 545p.

McLean, E. and Donaldson, E.M. (1989). References to fish pathology III. Selected bibliographies (1952-1988). Bull. E.A.F.P. 9, 77-80.

Marston, R.B. (1901). A list of books on fish, fishing and fisheries, to supplement the "Bibliotheca piscatoria" of Westwood and Satchell published in 1883 etc. London, 24p.

Nelson, J.S. (1984). Fishes of the World. Wiley-Interscience, Toronto, 523p.

Pickering, W. (1836). Bibliotheca piscatoria; a catalogue of books upon angling. London, 40p.

Ritterhusius, C. (1597). Catalogus doctorum virorum, qui praeter Oppianum de venatione et piscatione, aut rebus ad eam pertinentibus scriptserunt, leaves 74-75 In: Ritterhusius, C. "Prologomena in Oppianum". Lugduni Batavorum.

Smith, J.R. (1856). A bibliographical catalogue of English writers on angling and ichthyology. London, 47p.

Walbaum, J.J. (1788). Bibliotheca ichthyologica, seu historia litteraria ichthyologiae, etc. Emendata et aucta, etc. In: Petri Artedi renovati. Grypeswaldiae, 230p.

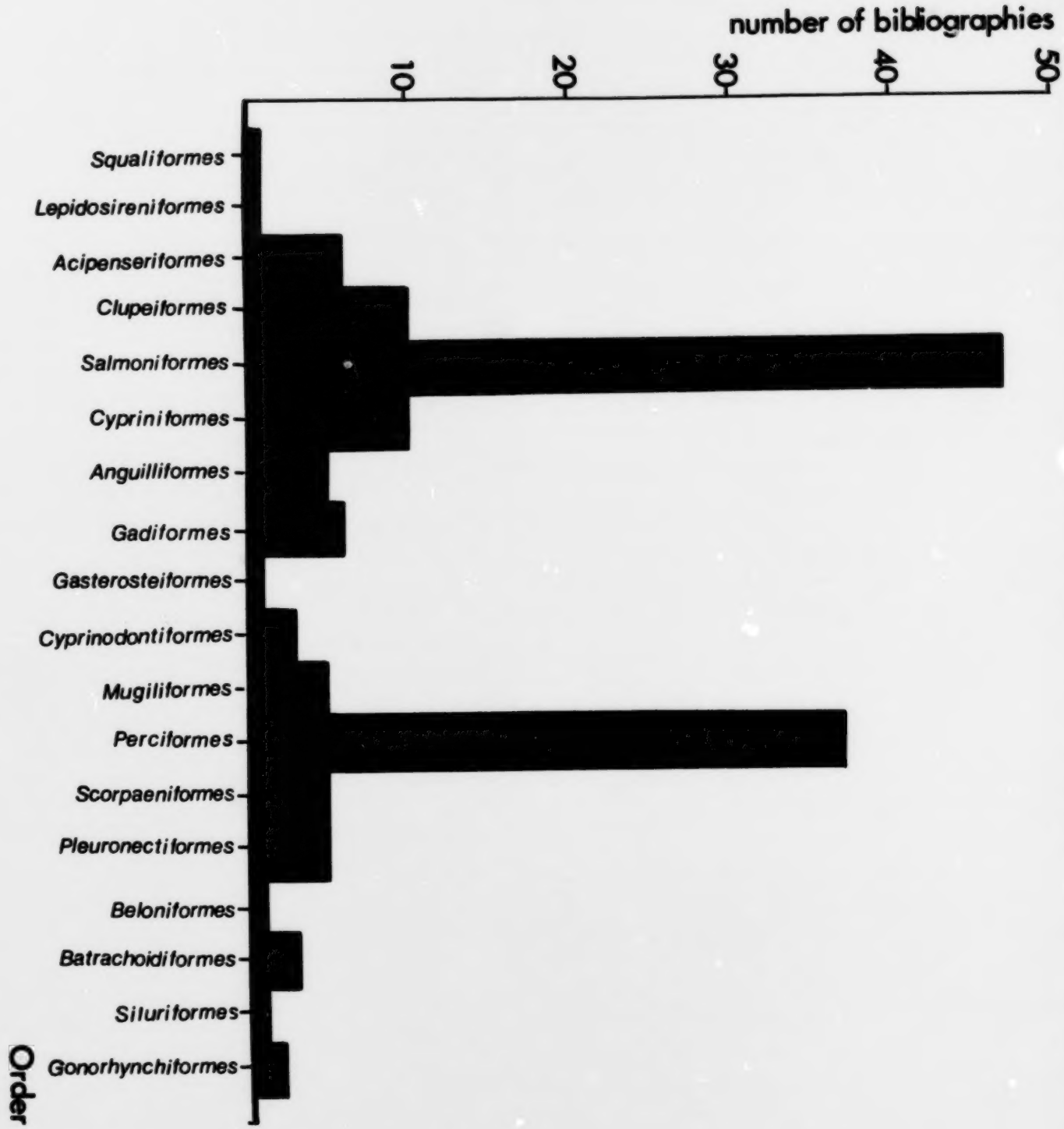
Westwood, T. and Satchell, T. (1833). Bibliotheca piscatoria. A catalogue of books on angling, the fisheries and fish-culture, with bibliographical notes etc. London, 397p.

FIGURES

Fig. 1. Analysis, by decade (1899-1988), of bibliographies cited in the present listing.

number of bibliographies
100
90
80
70
60
50
40
30
20
10
ante-1898
1899-1908
1909-1918
1919-1928
1929-1938
1939-1948
1949-1958
1959-1968
1969-1978
1979-1988

Fig. 2. Number of specialist bibliographies specific to Orders for the bibliographies cited. Systematic listings used throughout follow those of Lindberg (1974) and Nelson (1984).


number of bibliographies
10
20
30
40
50
Squaliformes
Lepidosireniformes
Acipenseriformes
Clupeiformes
Salmoniformes
Cypriniformes
Anguilliformes
Gadiformes
Gasterosteiformes
Cyprinodontiformes
Mugiliformes
Perciformes
Scorpaeniformes
Pleuronectiformes
Beloniformes
Batrachoidiformes
Siluriformes
Gonorhynchiformes
Order

APPENDIX

SPECIALISED BIBLIOGRAPHIES

A) Squaliformes
   i) Squalidae

1. Jones, B.C. & Geen, G.H. (1976) Bibliography of spiny dogfish (Squalus acanthias, L.) and related species. Can. Fish. Mar. Serv. Tech. Rep. No. 655, 84p.
   1009 references arranged alphabetically by author. Subject index covers all aspects of biology.

B) Lepidosireniformes
   i) Lepidosirenidae
   ii) Protopteridae

2. Conant, E.B. (1986) Bibliography of lungfishes, 1811-1985. J. Morphol. Suppl. 1, 305-373.
   2209 citations arranged alphabetically, indexed by subject and species. Includes a useful coding system for individual species identification.

C) Acipenseriformes
   i) Acipenseridae

3. Anderson, E.R. (1985) A partial bibliography for the sturgeon family Acipenseridae. Michigan Dept. Nat. Resourc. Fish. Res. Rep. no. 1936, 22p.

4. Fickeisen, D.H. (1985) White sturgeon bibliography. U.S. Dept. Energy, Bonneville Power Admin. Div. Fish. Wildl. Proj. no. 85-64, 48p.
   Approximately 480 references arranged alphabetically. One line annotations of some references clarify their contents.

5. Hoff, J.G. (1979) Annotated bibliography and subject index on the shortnose sturgeon Acipenser brevirostrum. NOAA/NMFS. Tech. Rep. NOAA-TR-NMFS-SSRF-731, 19p.
   165 citations with brief annotations and subject index.

6. Lane, E.D. (1985) A bibliography on the white sturgeon, Acipenser transmontanus Richardson, 1836. Can. Man. Rep. Fish. Aquat. Sci. no. 1828, 37p.
   224 published and unpublished articles are cited including theses and dissertations. Indexed by geographic location, subject and author.

   ii) Polyodontidae

7. Graham, L.K. (1986) An indexed bibliography of the paddlefish (Polyodon spathula). North Cent. Div. Am. Fish. Soc. Spec. Publ. no. 7, 118-159.
   555 references indexed under 16 subject headings, arranged alphabetically. Includes some references for the Chinese paddlefish Psephurus gladius.

8. Graham, L.K. and Bonislawsky, P. (1978) An indexed bibliography of the paddlefish (Polyodon spathula). Missouri Dept. Conserv., 14p.
335 references upon all aspects of paddlefish biology, indexed under 16 subject headings.

D) Clupeiformes
i) Clupeidae

9. Buen, F. de (1927) Notes et bibliographie sur la biologie de la sardine. Cons. Int. Explor. Mer, Proc. Verb. 44, 108-114.

10. Fontenot, D.D., Condrey, R.E. and Ford, T.B. (1980) A menhaden bibliography (formalization of a menhaden information data bank). Louisiana State Univ. (NOAA/NMFS), Baton Rouge, LA. (USA), 113p.
Each reference is placed under one of five subject headings: author, date, title, journal or publisher.

11. Messieh, S.N. (1980) A bibliography of herring (Clupea harengus L.) in the Northwest Atlantic. Can. Fish. Mar. Serv. Tech. Rep. No. 919, 28p.
Containing approximately 400 references, this bibliography is indexed by author and arranged under seven major subject headings.

12. Reintjes, J.W. (1964) Annotated bibliography on the biology of menhadens and menhaden-like fishes of the world. Fish. Bull. 63, 531-549.
238 references ranging from 1842-1962, indexed by subject. Annotated for species.

13. Scattergood, L.W. (1957) A bibliography of the herring (Clupea harengus and Clupea pallasii). Dept. Sea Shore Fish. Res. Bull. no. 26, 108p.
Around 3500 references dating back over 100 years, covering all aspects of the biology of the two species. Alphabetically arranged by author.

14. Tibbo, S.N. and Mckenzie, R.A. (1964) A bibliography of herring (Clupea harengus) in the Northwest Atlantic. A compilation of references submitted by Canada, USSR and USA. Fish. Res. Bd. Canada MS Rep. No. 794, 16p.
87 citations, non-indexed or annotated. Papers range from 1850-1964.

15. Wheeler, G.C. (1931) A bibliography of the sardines. Div. Fish Game Calif. Fish. Bull. no. 36, 133p.
Over 900 references indexed by subject, alphabetically arranged. Due to the date of publication, this excellent bibliography is of historical value in consideration of sardine biology and fishery.

E) Salmoniformes
i) Salmonidae

16. Alt, K.J. (1976) Annotated bibliography on Stenodus leucichthyes. Res. Rep. Alaska Dept. Fish. Game, no 8, 34p.

17. Anonymous (1974) Atlantic salmon references vol. 2. Environment Canada, Halifax, Nova Scotia, 428p.
This volume, which contains in excess of 2200 references on all aspects of Atlantic salmon biology superceded volume 1. Citations are indexed by author and subject.

18. Armstrong, R.H. (1965) Annotated bibliography on the Dolly Varden char. Res. Rep. Alaska Dept. Fish. Game no. 4, 26p.

19. Armstrong, R.H. and Morton, W.M. (1969) Revised annotated bibliography on the Dolly Varden char. Res. Rep. Alaska Dept. Fish. Game no. 7, 108p.

20. Bergeron, J. (1962) Bibliographie du saumon de l'Atlantique (Salmo salar L.). Contr. Ministere de la Chasse et des Pecheries Quebec no. 88, 64p.

21. Cope, O.B. (1958) Annotated bibliography on the cut-throat trout. U.S. Fish. Wildl. Serv. Fish. Bull. no. 140, 417-442.
135 fully annotated references arranged alphabetically. Also provides a listing of 27 zoological names proposed for cutthroats, together with 70 vernacular names.

22. Cope, O.B. (1964) Revised bibliography on the cutthroat trout. U.S. Fish. Wildl. Serv. Res. Rep. no. 65, 43p.
Includes a further 86 references in addition to those cited in the above.

23. Davaine, P., Beall, E., Walton, M. and Cazenave, M.C. (1982) La truite de mer Salmo trutta L. 1758. Bibliographie. Bull. Sci. Tech. Dept. Hydrobiol. Inst. Nat. Rech. Agron. no. 10, 54p.
627 references alphabetically arranged; incorporates both subject and geographic indices.

24. Estes, R.D. (1987) Selected bibliography of the Eastern brook trout Salvelinus fontinalis (Mitchell). Am. Fish. Soc. Trout Committee, Southern Div.
A non-indexed alphabetical listing of 1111 references.

25. Jensen, F.W. and Gaudet, J.-L. (1968). Bibliography on nutritional requirements of salmonid fishes. EIFAC Occas. Pap. no. 2, 28p.

26. MacMillan, S. (1987) An annotated bibliography of the Arctic char (Salvelinus alpinus) with emphasis on aquaculture, commercial fisheries and migration and movements. Univ. Manitoba Nat. Resourc. Inst., 20p.

27. Marshall, K.E. (1977) A bibliography of the Arctic char, Salvelinus alpinus (L.) complex to 1976. Fish. Mar. Serv. Tech. Rep. No. 621, 53p.
1028 references indexed by geographic location, subject and taxonomy. Citations are wide-ranging and incorporate theses and dissertations.

28. Marshall, K.E. (1978) A bibliography of the lake trout, Salvelinus namaycush (Walbaum), 1970-1977. Fish. Mar. Serv. Tech. Rep. No. 799, 15p.
Approximately 80 references indexed by subject.

29. Marshall. K.E. (1981) A bibliography of the Arctic char, Salvelinus alpinus (L.) complex to 1980. Can. Tech. Rep. Fish. Aquat. Sci. No. 1004, 72p.
1628 citations covering the 1600s to 1980. Taxonomic, geographic and subject indices are included in this alphabetically-arranged listing.

30. Marshall, K.E. and Layton, M. (1985) A bibliography of the lake trout, Salvelinus namycush (Walbaum) 1977 through 1984. Can. Tech. Rep. Fish. Aquat. Sci. No. 1346, 15p.
Some 250 references covering all aspects of lake trout biology, arranged alphabetically by author and indexed by subject and author.

31. Marshall, K.E. and Layton, M. (1985) A bibliography of the Arctic char, Salvelinus alpinus (L.) complex: 1981 through 1984. Can. Tech. Rep. Fish. Aquat. Sci. No. 1345, 16p.
Contains approximately 160 references; indexed by geographic location, subject and taxonomy. Includes references on the Dolly Varden char and white-spotted char (S. leucomaenis).

32. Marshall., K.E. and Keleher, J.J. (1970) A bibliography of the lake trout, Cristovomer namycush (Walbaum), 1929-1969. Fish. Res. Bd. Canada Tech. Rep. No. 176, 60p.
475 references for the period 1929-1969 indexed under 18 major subjects.

33. Maxfield, G.H. (1967) Pacific salmon literature compilation-1900-1959. U.S. Dept. Commerce, Doc. PB 174 102; 645 microfiches, 341p.
1406 citations derived from 119 serials, journals and reports. Each reference is placed under a subject catagory.

34. Olver, C.H. and Martin, N.V. (1984) A selective bibliography of the lake trout Salvelinus namycush (Walbaum) 1784-1982. Ontario Fish. Tech. Rep. Ser. No. 12, 109p.
Approximately 1900 references from the late 1800s to 1982. Indexed by 16 subject headings.

35. Schmidt, A.H., Graham, C.C. and MacDonald, J.E. (1979) Summary of literature on four factors associated with salmon and trout freshwater life history. Fish. Mar. Serv. MS Rep. No. 1487, 127p.
Of the 536 references, 133 are annotated.

36. Shephard, C., Miller, G. and Groot, C. (1985) Migration and movements of Pacific salmon, Atlantic salmon and steelhead trout: a bibliography 1900-1982. Can. Tech. Rep. Fish. Aquat. Sci. No. 1413, 450p.
1796 citations cross-referenced by 11 indices.

37. Wells, P.G. and Moyce, C. (1981) A selected bibliography on the biology of Salmo gairdneri Richardson (rainbow, steelhead, Kamloops trout), with particular references to studies with aquatic toxicants. 2nd. ed. Environ. Prot. Serv. Econ. Tech. Rev. Rep. (Canada) EPS-3AR-81-1, 96p.
2321 references arranged alphabetically and accessed by key-word-in-context index.

38. Wilimovsky, N.J. and Freihofer, W.O. (1957) Guide to the systematic biology of Pacific salmon. U.S. Dept. Interior Spec. Sci. Rep. Fish. No. 209.
The over 1000 citations, which include many earlier works are indexed by a detailled species and subject format.

39. Wright, F.T. (1975) Atlantic salmon (Salmo salar): an annotated bibliography. U.S. Fish. Wildl. Serv. Tech. Rep. No. 83, 22p.
Some 220 references partially annotated, covering mainly papers on disease.

ii) Coregonidae

40. Clady, M.D. (1966) A further bibliography of the coregonid fishes. Uni. Michigan Dept. Wildl. Fish. Mimeogr., 32p.

41. Marshall, K.E. and Woods, C.S. (1971) A bibliography of the coregonid fishes. Fish. Res. Bd. Can. Tech. Rep. No. 151, 63p.
In excess of 2200 references arranged alphabetically, but not indexed.

42. Ryder, R.A. (1954) A bibliography of coregonid fishes. Uni. Michigan Dept. Wildl. Fish. Mimeogr., 36p.

iii) Thymallinae

43. Armstrong, R.H., Hop, H. and Triplehorn, J.H. (1986) Indexed bibliography of the holoarctic genus Thymallus (Grayling) to 1985. Biol. Pap. Uni. Alaska, No. 23, 19-110.
1314 references indexed by taxonomy, subject and geographic location. Provides a useful listing of synonyms for species, subspecies, infrasubspecies and common names.

44. Butcher, G.A. and Davidson, R.B. (1982) A bibliography on Arctic grayling (Thymallus arcticus). B.C. Min. Environ. Aquat. Stud. Branch, 30p.
Approximately 300 citations, arranged alphabetically.

45. Crawford, H.S. (1952) Selected bibliography of food habits of grayling, family Thymallidae. Dept. Fish. Uni. Michigan, 6p.

vi) Osmeridae

46. Grunchy, I.M. and McAllister, D.E. (1972) A bibliography of the smelt family: Osmeridae. Fish. Res. Bd. Canada Tech. Rep. No. 368, 104p.
Includes approximately 1800 titles from 1553-1971, arranged alphabetically by author.

v) Esocidae

47. Crossman, E.J. and Casselman, J.M. (1987) An annotated bibliography of the pike Esox lucius (Osteichthyes: Salmoniformes). Roy. Ont. Mus. Life Sci. Misc. Publ., 386p.
Includes approximately 3500 references, covering all aspects of pike biology. Author index under subject headings.

48. Crossman, E.J. and Goodchild, C.D. (1978) An annotated bibliography of the muskellunge Esox masquinogy (Osteichthyes: Salmoniformes). Roy. Ont. Mus. Life Sci. Misc. Publ., 131p.
More than 1100 inclusions, indexed by subject.

49. Crossman, E.J. and Lewis, G.E. (1973) An annotated bibliography of the chain pickerel, Esox niger (Osteichthyes: Salmoniformes). Roy. Ont. Mus. Life Sci. Misc. Publ., 81p.

F) Cypriniformes
i) Cyprinidae

50. Clemens, H. (1965) A goldfish bibliography compiled through the courtesy of Ozark Fisheries, Stoutland, Missouri. The Aquarium Publ. Co., Norristown, PA. (USA), 41p.

51. Nair, K.K. (1968) A preliminary bibliography of the grass carp, (Ctenopharyngodon idella, Valenciennes). FAO Fish. Circ. No. 302, 16p.

52. Shapiro, S.M. (1975) A bibliography of the spottail shiner, Notropis hudsonius (Clinton) Pieces: Cyprinidae . Mass. Coop. Fish. Res. Unit, Publ. No. 43, 47p.

53. Smith, C.R. and Shireman, J.V. (1983) White amur bibliography. U.S. Army Corps Eng. Environ. Lab., Misc. Pap. Aquat. Plant Control Res. Prog. Vicksburg, MS. (USA), (A-83-7), 179p.

ii) Ameiuridae

54. Riggs, C.D. (1958) Selected references on the channel catfish, Ictalurus punctatus. U.S. Fish. Wildl. Serv. Spec. Sci. Rep. Fish. No. 240, 10p.
Alphabetically arranged by author, this volume contains 180 references.

iii) Clariidae

55. Clay, D. (1977) Biology of the tropical catfish (Family Clariidae) with special emphasis on its suitability for culture (including a bibliography of the Clariidae and related topics). Fish. Mar. Serv. MS Rep. No. 1458, 68p.
901 citations specific to the Clariidae, covering the years 1866-1977.

56. Vincke, P. (1982) Catfishes of the genus Clarias - A general bibliography. FAO Fish. Circ. No. 739, 38p.
494 citations alphabetically arranged and indexed by taxonomy, subject and geographical location.

G) Anguilliformes
i) Anguillidae

57. Eales, J.G. (1967) Bibliography of the eels of the genus Anguilla. Fish. Res. Bd. Canada Tech. Rep. No. 28, 171p.
Cites around 1500 references; although non-indexed, captions provide species identification for each of the cited papers.

58. Jorgensen, L. (1981) Aal (Anguilla sp.): en litteraturoversikt. Kgl. Norske Viderskabers Selskab Museet, Trondheim, 66p.

59. Liewes, E.W. (1981) The bibliography of Anguilla species (Pisces:Teleostei). Uni. Stirling Inst. Aquacult., 2 vols, 471p. Volume 1 contains 3419 references, while volume 2 provides an author index. The bibliography is divided into 21 subject catagories.

H) Gadiformes
i) Gadidae

60. Dewar, D., Johnson. L., Layton, M. and Marshall, K.E. (1983) A bibliography of the Arctic species of the Gadidae to 1982. Can. Tech. Rep. Fish. Aquat. Sci. No. 1141, 29p.
Approximately 500 references are included, covering five species from 1770-1982. Includes geographical, subject and species indices.

61. McPhail, M.E. (1957) A selected bibliography of salt cod. Fish. Res. Bd. Canada Tech. Station Circ. No. 5, 30p.

62. Sameoto, D. (1984) Review of current information on Arctic cod (Boreogadus saida Lepechin) and bibliography. Bedford Inst. Oceanol. Dartford, N.S. (Canada), 71p.
276 citations, including many Russian publications.

63. Westrheim, S.J. and Miller, G. (1987) A partial bibliography of Pacific cod (Gadus macrocephalus) in the North Pacific Ocean, through December 1985. Can. Tech. Rep. Fish. Aquat. Sci. No. 1518, 59p.
391 references including Ph.D. and M.Sc. dissertations. Indexed by author and subject.

64. Wise, J.P. (1963) Bibliography on the biology of the cod, Gadus morhua, and related species. Fish. Bull. 62, 483-538.
1020 refrences indexed by subject and arranged alphabetically.

ii) Merluccidae

65. Clay, D. and Clay, H. (1979) Bibliography of the hake family (Pisces: Merluccidae). Int. Comm. N.-W. Atlantic Fish. Res. Doc. 79/VI/78, 61p.

I) Gasterosteiformes
i) Gasterosteidae

66. Coad, B.W. (1981) A bibliography of the sticklebacks (Gasterosteidae: Osteichthyes). Syllogeus No. 35, Natl. Mus. Canada. 142p.
Over 1500 citations derived from 18 major sources. Includes some very obscure citations dating back to the last century.

67. Bengston, D.A. (1980) A partial bibliography of Cyprinodon variegatus (Osteichthyes: Cyprinodontidae) Gulf Res. Rep. No. 6, 349-358.

J) Cyprinodontiformes
i) Cyprinodontidae

68. Huver, C.W. (1973) A bibliography of the genus Fundulus. G.K. Hall and Co., Boston, Mass. (USA), 138p.
2000 entries on killifishes covering the years 1842-1971 arranged in 12 subject areas, but non-annotated.

ii) Oryziatidae

69. Briggs, J.C. and Egami, N. (1959) The medaka (Oryzias latipes). A commentary and a bibliography. J. Fish. Res. Bd. Canada 16, 363-380.
356 citations from the 1800s-1959.

K) Mugiliformes
i) Mugilidae

70. Alvarez-Lajonchere, L. (1974) Adiciones a la bibliografia de la familia Mugilidae (Telostei) publicada por FAO en 1972. Ciencias (Invest. Mar.), Havana, 13, 1-116.
564 references listed alphabetically and indexed by subject.

71. Alvarez-Lajonchere, L. (1976) Segunda adicione a la bibliografia de la familia Mugilidae (Teleostei) publicada por FAO en 1972. Ciencias (Invest. Mar.) Havana, 23, 5-80.
510 citations listed alphabetically and indexed under five major headings.

72. Pillay, S.R. (1972) A bibliography of the grey mullets family Mugilidae. FAO Fish. Tech. Pap. No. 109, 99p.
Includes 1373 published papers; partially annotated.

73. Thomson, J.M. (1964) A bibliography of systematic references to the grey mullets (Mugilidae). Tech. Pap. Div. Fish. CSIRO, Austr., 16, 127p.
696 citations arranged alphabetically.

ii) Sphyraenidae

74. Walford, L.A. (1932) A bibliography of barracudas (Sphyraenidae). pp. 74-120, In: Walford, L.A. The California barracuda (Sphyraena argenta). Calif. Div. Fish. Game Fish. Bull. 37.
Over 300 papers are cited, being accessed by a subject index.

L) Perciformes
i) Serranidae

75. Bortone, S.A., Armsby, K.A. and Bortone, M.B. (1980) An indexed bibliography of snapper (Lutjanidae) and grouper sea bass (Serranidae) biology. Florida State Uni. Sea Grant Publ. FLSGP-L-80-001, 300p.
1192 references indexed by species, subject and key-word-in-context.

76. Divina, Z.M., Gabuelo, W.P. and Arisola, A.T. (1987) Grouper abstracts. Brackishwater Aquacult. Inf. Syst. Publ. No. 8, 95p.
327 citations are included of which 238 are fully annotated. Indexed by subject and species.

77. Ortega, R.S. and Graboso, R.P. (1986) Sea bass abstracts. SEAFDEC Bibliogr. No. 6, 156p.
Some 300 citations which include 280 on Lates calcarifer and 20 on L. niloticus.

78. Zamora, D.V., Gabuelo, W.P. and Arisola, A.T. (1987) Grouper abstracts. Brackish water Aquacult. Info. Syst. Bibliogr. Ser. No. 8, 95p.

ii) Moronidae

79. Horseman, L.O. (1976) An indexed bibliography of the striped bass, Morone saxatilis 1670-1976. Bull. Ichthyol. Assoc. Inc., Ithaca, No. 13, 118p.

80. Rogers, B.A. and Westin, D.T. (1975) A bibliography on the biology of the striped bass, Morone saxatilis (Walbaum). Uni. Rhode Island Mar. Tech. Rep. No. 37, 134p.

81. Woodridge, H.C. and Hancock, H.M. (1964) A bibliography of the striped bass or rockfish, Roccus saxatilis (Walbaum). Sport Fish. Inst. Washington D.C. (USA). 23p.
Lists 534 papers arranged alphabetically.

iii) Centrarchidae

82. Rutledge, W.P. (1971) A contribution towards a bibliography of the white crappie, Pomoxis annularis, and the black crappie, Pomoxis nigromaculatus. Texas Pks. Wildl. Dept. Tech. Ser. No. 6, 15-35.

iv) Percidae

83. Ebbers, M.A., Colby, P.J. and Lewis, C.A. (1988) Walleye-Sauger bibliography. Ont. Min. Nat. Res./Minn. Dept. Nat. Res. 201p.
3116 citations alphabetically arranged and indexed by subject.

84. Robins, G.L. (1970) A bibliography of the pike perch of the genus Stizostedion (including the genus known as Lucioperca). Fish. Res. Bd. Canada Tech. Rep. No. 161, 67p.
The 581 references are indexed by subjects which are broken down into 19 major catagories; citations were derived from 3 bibliographic sources.

v) Lutjanidae

see Bortone, S.A. et al. above in Serranidae.

85. Garcia, A. and Garcia, D.S. (1982) Lutjanidae. Bol. Bibliogr. Dep. Info. Doc. Cent. Invest. Pesq. Havana, No. 6, 46p.
210 citations, indexed by author, subject and taxonomy.

86. Tashiro, J.E. (1979) Annotated bibliography and subject indices for Western Atlantic snapper (Lutjanidae). NOAA NMFS Tech. Memo. NOAA-TM-NMFS-SEFC-8, 95p.
Contains references dating between 1896-1977. 17 species covered, fully annotated and indexed by subject and species.

vi) Leiognathidae

87. Pauly, D. and Wade-Pauly, S. (1981) An annotated bibliography of slipmouths (Pisces: Leiognathidae). ICLARM Bibliogr. No. 2, 62p. 941 references mostly annotated. Indexed by subject and geographical location.

vii) Cichlidae

88. Chimits, P. (1955) Tilapia and its culture; a preliminary bibliography. FAO Fish. Bull. 8, 33p.

89. Chimits, P. (1957) The tilapias and their culture (A second review and bibliography). FAO Fish. Bull. 10, 1-24.

90. St. Amant, J.A. and Stevens, M.C. (1967) Bibliography of publications concerning Tilapia mossambica (Peters). Calif. Dep. Fish. Game Fish Bull. 12p.

91. Schoenen, P. (1982) A bibliography of important tilapias (Pisces:Cichlidae) for aquaculture. ICLARM Bibliogr. No. 3, 336p. 3278 citations arranged alphabetically for each of seven species noted. Includes a geographical and subject index for each species considered.

92. Schoenen, P. (1984) A bibliography of important tilapias (Pisces: Cichlidae) for aquaculture, Oreochromis macochir, Oreochromis aureus, Oreochromis honorum, Oreochromis mossambicus, Oreochromis niloticus, Sarotherodon galilaeus, Tilapia rendalii and Tilapia zilli. ICLARM Bibliogr. No. 3, suppl. No. 1, 191p.
1494 references arranged as above.

93. Schoenen, P. (1985) A bibliography of important tilapias (Pisces:Cichlidae) for aquaculture, Oreochromis variabilis, Oreochromis andersoni, Oreochromis esculentus, Oreochromis leucostictus, Orechromis mortimeri, Oreochromis spilurus niger, Sarotherodon melanotheron and Tilapia sparr manii. ICLARM Bibliogr. no. 6. 99p.

94. Thys, D.F.E. v.d. Audenaerde (1968) An annotated bibliography of Tilapia (Pisces: Cichlidae). Doc. Zool. Mus. R. South Afr. Centr. No. 14, 406p.

viii) Siganidae

95. Vanstone, W.E. and Turnbull, D. (1981) Siganidae (the rabbitfish) A bibliography. Int. Dev. Res. Cent. Publ., Ottawa, Canada IDRC MR46e, 16p.
156 references from 1835-1980. Indexed by subject and species.

ix) Scombridae

96. Beardsley, G.L. and Simmons, D.C. (1971) A bibliography of the blackfin tuna Thunnus atlanticus (Leeson). NOAA Tech. Rep. NMFS SSRF-635, 10p. 184 references indexed by subject.

97. Bernabei, H. (1962) Bibliography of research on tuna for the years 1957-1961. FAO Fish. Tech. Pap. T16 rev. 1/E, 53p.

98. Corwin, G. (1930) A bibliography of the tunas. Calif. Dep. Fish. Game Fish Bull. 22, 103p.
Indexed by subject, the approximately 800 references dating from 1554 are arranged alphabetically by author.

99. Eckert, G.J., Kalish, J., Majkowski, J. and Pethebridge, R. (1987) An indexed bibliography of the southern bluefin tuna Thunnus maccoyii (Castlenau, 1872). CSIRO Mar. Lab. Rep. no. 185, 49p.
538 citations accessed through subject and author indices.

100. Inter-American Tropical Tuna Commission (1980) Bibliography (eight species of scombrids). Int. -Am. Trop. Tuna Comm. Spec. Rep. no. 2, 447-530.

101. Jones, S. and Rosa, H. (1967) Synopsis of biological data on the fishes of the genus Rastrelliger Jord. and Starks 1908, with an annotated bibliography. Proc. Symp. Scombr. Fishes, Mandapan Camp (Mar. Biol. Assoc. India) 1962, pt III, 1190-1236.

102. Klawe, W.L. and Miyake, M.P. (1967) An annotated bibliography on the biology and fishery of the skipjack tuna, Katsuwonus pelanus, of the Pacific ocean. Inter-Am. Trop. Tuna Comm. Bull. 12, 363p.
Over 1800 references prior to 1966; briefly annotated; includes subject headings index and listing of junior authors. Bilingual (English- Spanish). All aspects of the biology and fishery of this species are covered.

103. Le Gall, J.Y. (1975) Annotated bibliography of albacore Thunnus alalinya (Bonnaterre, 1788) of the Atlantic ocean, 1962-1972. FAO Fish. Rep. 12-6/4 (Suppl. 1), 67p.
References are given in alphabetical order; fully annotated and indexed by key words.

104. Manooch, C.S., Nakamura, E.L. and Hall, A.B. (1978) Annotated bibliography of four Atlantic scombrids: Scomberomorus brasiliensis, S. cavalla, S. maculatus and S. regalis. NOAA Tech. Rep. TR-NMFS-CIRC-418, 169p.
570 references each fully annotated, for the periods between 1973-1977. Subject index is included for each species.

105. Shimada, B.M. (1951) An annotated bibliography on the biology of Pacific tunas. Fish. Bull. 52, 58p.
Alphabetically arranged by author and indexed by subject.

106. Sund, P.N. (1981) Tunas, oceanography and meterology of the Pacific; an annotated bibliography, 1950-1978. NOAA Tech. Rep. NMFS-SSRF-744, 126p. Key words included in index which is cross-referenced for each citation.

107. van Campen, W.G. (1962) Bibliography of research on tunas for the years 1954-1956. FAO Fish Tech. Pap. no. 23, 22p.

108. van Campen, W.G. and Hoven, E.E. (1956) Tunas and tuna fisheries of the world; an annotated bibliography, 1930-1953. Fish. Bull. 57, 173-249. Approximately 900 fully annotated citations, indexed by subject, which includes species and authors.

109. Zabala, P.T. (1982) A selected bibliography on tunas fisheries in the South China Sea region. FAO/UNDP, Colombo (Sri Lanka), IPTP/83/GEN/2. 153 references arranged alphabetically, covering tuna fisheries and biology.

xi) Labridae

110. Serchuk, F.M. and Frame, D.W. (1973) An annotated bibliography of the cunner Tautogolabrus adspersus (Walbaum). NOAA Tech. Rep. NMFS SSRF-668, 43p. 347 entries annotated and indexed.

M) Scorpaeniformes
i) Scorpaenidae

111. Amiedei, R. (1986) Bibliography. pp. 53-71 In: Amiedei, R [ed.] Rockfish: a focus for research? Calif. Sea Grant Proj. Rep. No. T-CSGCP-015.

112. Clay, O. and Kenchington, T.J. (1986) World bibliography of the redfishes and rockfishes (Sebastinae, Scorpaenidae). Can. Tech. Rep. Fish. Aquat. Sci. No. 1429, 303p.
3374 citations with key-word-in-context index. Includes many foreign language references starting from the last century.

113. Leet, M.H. and Reilly, C.A. (1988) Annotated bibliography of the genus Sebastes (family Scorpaenidae). Pacific Mar. Fish. Comm. N.M.F.S., Portland, OR. 249p.
The 1258 citations are listed alphabetically, many being annotated.

114. Westrheim, S.J. and Leaman, B.M. (1976) A selected bibliography of Northwestern Pacific rockfishes (Sebastes and Sebastolobus) other than Sebastalutus. Fish. Mar. Serv. Tech. Rep. No. 659, 20p.
171 references including available translations, arranged alphabetically by author. Species indexed.

ii) Cottidae

115. Ilg, J., Walton, J.M. and Buckley, R.M. (1979) An annotated bibliography on the lingcod, Ophiodon elongatus. Wash. Dept. Fish. Tech. Rep. No. 51, 25p.
Full annotation of 106 references, indexed by 20 subject categories.

N) Pleuronectiformes
i) Hippoglosidae

116. McCracken, F.D. (1960) Halibut bibliography. Int. Comm. N.W. Atlantic Fish., Standing Comm. Res. Station Proc. Selected Rep. 1960 Ann. Meet. pp 77-80.

ii) Paralichthyinae

117. Scarlett, P.G. (1982) Annotated bibliography and subject index on summer flounder Paralichthyes dentatus. NOAA Tech. Rep. NMFS SSRF-755, 15p.
114 annotated citations alphabetically arranged.

iii) Pleuronectidae

118. Reiersen, L.O. (1982) The biology of common flatfishes, a selected bibliography. Rep. Forsk. Havforurens (Norway) Mar. Poll. Res. Monit. Prog. 225p.
Indexed bibliography for eight species. Papers range from 1895-1980.

119. Topp, R.W. (1965) An annotated bibliography of the winter flounder Pseudopleuronectes americanus (Walbaum). Contr. No. 14 Mass. Div. Mar. Fish. Dept. Nat. Resourc., Boston, 30p.

120. White, D.B. and Stickney, R.R. (1973) A bibliography of flatfish (Pleuronectiformes) research with partial annotation. Tech. Rep. Ser. GA Mar. Sci. Cent. Sea Grant Prog. No. 73-6, 77p.
The 433 references contained within this bibliography emphasise culture procedures. All inclusions are cross-referenced by subject and species. Some of the papers are annotated.

O) Beloniformes
i) Scombresocidae

121. Hughes, S.E. (1970) Annotated references on the Pacific saury, Cololabis saira. U.S. Fish. Wildl. Serv. Spec. Sci. Rep. Fish. No. 606, 12p.

P) Batrachoidiformes
i) Batrachoididae

122. Robinson, P.F. (1961) A bibliography of papers dealing with the oyster toadfish, Opsanus tau. Chesapeake Biol. Stat. Nat. Resourc. Inst. Contrib. No. 183, 9p.

123. Robinson, P.F. and Schwartz, F.J. (1965) A revised bibliography of papers dealing with the oyster toadfish, Opsanus tau. Cheasapeake Biol. Stat. Nat. Resourc. Inst. Contrib. No. 284, 18p.
A list of 250 citations arranged under subject headings.

124. Schwartz, F.J. and Bright, B.B. (1982) A bibliography of papers dealing with the oyster toadfish, Opsanus tau, 1965 through April 1982. Uni. North Carolina Inst. Mar. Sci. Specl. Publ., 33p.
380 references alphabetically arranged and indexed by subject.

Q) Gonorhynchiformes
i) Chanidae

125. Ramsingh, D.C., Vanstone, W.E. and Turnbull, D. (1981) Chanos chanos (the milkfish): a bibliography. Int. Dev. Res. Cent. Publ., Ottawa, Canada IDRC MR44e, 65p.
711 citations alphabetically arranged.

126. SEAFDEC (1983) Milkfish bibliography. SEAFDEC Bibliogr. Ser. No. 3, 174p.

REPRODUCTION, EARLY LIFE HISTORY and LARVAL REARING

127. Alderdice, D.F., Bams, R.A. and Velsen, D.P.J. (1977) Factors affecting the deposition, development and survival of salmonid eggs and alewives: A bibliography, 1965-1975. Fish. Mar. Serv. Tech. Rep. No. 743, 276 p.
1695 references, including technical reports, dissertations, theses and available translations. Indexed by author, subject and developmental stage.

128. Anonymous (1980) Bibliography on the identification of fish eggs and larvae in waters around Japan. Jap. Fish. Res. Conserv. Assoc., 75p.

129. Atz, J.W. (1964) A working bibliography on rearing larval marine fishes in the laboratory. U.S. Fish. Wildl. Serv. Res. Rep. No. 63, 95-102.

130. Atz, J.W. and Pickford, G.E. (1964) The pituitary gland and its relation to the reproduction of fishes in nature and in captivity. A bibliography. FAO Fish. Tech. Pap. No. 37, 61p.
Full annotation of 380 references upon fish reproduction. Indexed by author, subject and species.

131. Barlow, C.G. and Turnbull, D. (1981) Egg incubation and larval rearing of marine teleosts: A bibliography. Int. Res. Dev. Cent. Publ., Ottawa, Canada, 34p.
321 citations, including available translations. Format includes taxonomic and subject indices.

132. Blumer, L.S. (1982) A bibliography and catagorization of bony fishes exhibiting parental care. Zool. J. Linnean Soc. 76, 1-22.
288 citations arranged in tabulated form for family and the type of care exhibited. Indexed by family and order.

133. Cambray, J.A. and Teugels, G.G. (1988) Selected annotated bioliography of early developmental studies of African freshwater fishes. Ann. Cape. Prov. Mus. (Nat. Hist.) 18: 31-56.
153 fully annotated references arranged by family.

134. Castle, P.H.J. (1969) An index and bibliography of eel larvae. JLB Smith Inst. Ichthyol. Rhodes Uni. S. Afr. Spec. Publ. No. 7, 121p.

135. Charlon, N. (1982) Stades preleptocephale, leptocephale et civelle du genre Anguilla. Bibliographie (1829-1980). FAO Fish. Circ. No. 738, 45p.
589 references arranged alphabetically, indexed by subject, taxonomy and geographical location.

136. Dangel, J.R. (1973) An annotated bibliography of interspecific hybridization of Salmonidae. FAO Fish. Circ. No. 133, 32p.
A total of 327 references arranged alphabetically.

137. Dangel, J.R., Macy, P.T. and Withler, F.C. (1973) Annotated bibliography of interspecific hybridization of fishes of the subfamily Salmonidae. NOAA Tech. Mem. NMFS-NWFC-1, 48p.
611 annotated references to both published and unpublished material. Indexed by species.

138. Day, D.S., Sanger, G.A., Symmonds, H.A. and Threlkeld, S.T. (1971) Bibliography of the ichthyoplankton of the subarctic Pacific region. NOAA, NMFS, N. Pacific Fish. Res. Cent.

139. Dill, L.M. (1969) Annotated bibliography of the salmonid embryo and alevin. Dept. Fish., Vancouver, B.C., 190p.
Each of the citations is fully annotated. Approximately 330 references are included.

140. Donaldson, E.M. (1977) Bibliography of fish reproduction 1963-1974. Part 1. general, non-teleostean species and Teleostei, Abramis to Clinostomas; Part 2. Teleostei, Clupea to Ompok; Part 3. Teleostei, Oncorhynchus to Zygonectes and addendum. Fish. Mar. Ser. Tech. Rep. No. 732, 572p.
Approximately 6500 references grouped according to major sub-divisions, alphabetically by genus. Together with Dean (1916-1923) and Atz and Pickford (1962), the above probably represents a near complete bibliography of fish reproduction to 1974.

141. Elliott, E.M. and Kushlan, I.M. (1980). Annotated bibliography of ichthyoplankton in Massachusetts Bay. Mass. Div. Mar. Fish., Boston, 52p.
The approximately 700 references are placed under eight subject headings.

142. Goodyear, C.D., Edsall, T.A., Dempsey, D.M.O., Moss, G.D. and Polanski, P.E. (1982) Atlas of the spawning and nursery areas of the Great Lakes fishes vol. 14. Bibliography. U.S. Biol. Serv. Prog. Fish. Wildl. Serv., 153p.

143. Holland, L.E. and Huston, M.L. (1983). A compilation of available literature on the larvae of fishes common to the Upper Missouri river. U.S. Fish. Wildl. Serv., Natl. Fish. Res. Lab., Lacrosse, Wisconsin, 362p.

144. Hoyt, R.D. (1988) A bibliography of the early life history of fishes. Vol. 1, List of titles, 525p. Vol. 2, Index, 448p. West Kentucky Univ. 13717 citations arranged alphabetically. Includes subject, scientific name, common name, family name and location indices. Arranged alphabetically by author.

145. Jones, S. (1950). Bibliography of the breeding habits and development of fishes of inland waters of India. J. Zool. Soc. India 2, 109-125.

146. Jones, S. (1951). Bibliography of the breeding habits and development of estuarine and marine fishes of India. J. Zool. Soc. India 3, 121-139.

147. Jones, S. and Bensam, P. (1968). Annotated bibliography on the breeding habits and development of fishes of the Indian region. Bull. Cent. Mar. Fish. Res. Inst. (Mandapan Camp, India) 3, 1-154.

148. Kernehan, R.J. (1976) A bibliography of early life stages of fishes. Ichthyol. Assoc. Bull. No. 14, 190p.
2190 references. Most emphasis given to the period 1950-1976. Indexed by author and family.

149. Lane, K.E., Glabe, J.R. and Hanson, J.A. (1981) An annotated bibliography on the genetic diversity of the genera Salmo, Salvelinus and Oncorhynchus. Calif. Dep. Fish. Game Inland Fish. Admin. Rep. 81-5, 71p.

150. Lathrop, B.F. and Snyder, D.F. (1986) Bibliographies on fish reproduction and early life history. Am. Fish. Soc. Early Life Hist. Sect. Newsletter 7, 29-36.
Cites around 90 bibliographies, many of which contain specific regional references. Non-annoted or indexed.

151. Levesque, F. and Magnan, P. (1985) Annotated bibliography of the Atlantic salmon (Salmo salar) in the post-spawning stage. Can. MS Rep. Fish. Aquat. Sci. No. 1823, 47p.
Contains 100 fully annotated citations, indexed by author and subject.

152. Mansueti, R.J. (1954). A partial bibliography of fish eggs, larvae, and juveniles, with particular reference to migratory and estuarine species of the Atlantic coast supplemented by a checklist and references to the early development of fishes and fish-like chordates of Maryland waters. Maryland Dept. Res. educ., Chesapeake Biol. Lab., Solomons, MD., Mimeogr. 55p.

153. May, R.C. (1972) An annotated bibliography of attempts to rear the larvae of marine fishes in the laboratory. NOAA Tech. Rep. NMFS SSRF-632, 24p.
68 citations for the period 1878-1969; annotations summarise each article, and appendices list species studied and types of feed utilised in their rearing.

154. Richards, W.J. and Klawe, W.L. (1972) Indexed bibliography of the eggs and young of tunas and other scombrids (Pisces, Scombridae) 1880-1970. NOAA Tech. Rep. NMFS SSRF-652, 107p.
Approximately 300 papers are listed; indexed by subject and species.

155. Schwartz, F.J. (1972) World literature on fish hybrids with an analysis by family, species and hybrid. Publ. Gulf Coast Res. Lab. Mus. No. 3, 328p.
1945 references arranged alphabetically by family. Includes author, family and species indices and a list of natural and artificial hybrids. Covers period 1558-1971.

156. Schwartz, F.J. (1981) World literature to fish hybrids with an analysis by family, species and hybrids. Suppl. 1. NOAA Tech. Rep. NOAA/NMFS, 510p.
1810 citations published between 1971-1980, arranged as above.

157. Scotton, L.N., Smith, R.E., Smith, N.S., Price, K.S. and Desylva, D.P. (1978). Pictoral guide to fish larvae of Delaware Bay with information and bibliographies useful to the study of fish larvae. Delaware Bay Rep. Ser. 7, Coll. Mar. Stud., Uni. Delaware, 206p.

158. Shaw, R.F. (1980) A bibliography of the egg, larval and juvenile stages of fishes: including other pertinent references. Marine Sea Grant Tech. Rep. No. 61, 266p.

159. Simon, T.P. (1986) A listing of regional guides, keys and selected comparative descriptions of freshwater and marine larval fishes. A.F.S. Early Life History Section Newsletter, 7: 10-15.
A listing of 225 references placed under three headings.

160. Smith, P.E. (1979) Selected bibliography on pelagic fish egg and larval surveys. FAO Fish. Circ. No. 706, 97p.
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